

10/511708
 DT01 Rec'd PCT/PTC 15 OCT 2004

In the Claims:

This listing of claims will replace all prior versions,
 and listings, of claims in the application:

Listing of Claims:

1. (Original) An isolated region of the Y chromosome between SKY1 and sY83 which encompasses the Y-specific growth gene GCY.
2. (Original) An isolated region according to claim 1 which is about 700 Kb in size.
3. (Currently Amended) An isolated region according to claim 1 ~~or 2~~ in which the Y chromosome is a human chromosome.
4. (Currently Amended) An isolated region according to ~~claims 1 or 3~~ claim 1 which is between SKY8 and sY83.
5. (Currently Amended) An isolated region according to ~~claims 1 or 3~~ claim 1 which is between sY79 and sY81.
6. (Original) An isolated GCY protein, encoded by a region of the Y chromosome within the interval SKY1 and sY83.
7. (Original) An isolated GCY protein according to claim 6 encoded by a region within the interval SKY8 and sY83.
8. (Original) An isolated GCY protein according to claim 7 encoded by a region between sY79 and sY81.

9. (Original) An isolated GCY protein according to claim 8, which is ADLY or a functional fragment thereof.

10. (Currently Amended) A nucleic acid primer having a nucleic acid sequence selected from a nucleic acid sequence as ~~shown in Tables 2, 5, 6, 7A, 7B, 7C or 8~~ recited in SEQ ID NOS: 1 - 26, SEQ ID NOS: 27 - 60, SEQ ID NOS: 61 - 71, SEQ ID NOS: 72 - 98, SEQ ID NOS: 99 - 121, SEQ ID NOS: 122 - 131, or SEQ ID NOS: 132 - 147.

11. (Original) A method of studying GCY localisation or identifying a GCY gene associated with height comprising the use of a primer according to claim 10 to selectively amplify or detect a region of a nucleic acid molecule.

12. (Currently Amended) An isolated protein having greater than 65% homology to ~~the~~ a GCY protein of claims 6-9 encoded by a region of the Y chromosome within the interval SKY1 and sY83, and which contributes to the sex-related height difference in humans.

13. (Canceled)